

1 JULY 2004

Flying Operations

AIRCREW LIFE SUPPORT (ALS) PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO WWW site at:
<http://www.e-publishing.af.mil>

OPR: XONH (Lt Col Roger A. Dellinger)
Supersedes AFSPCI11-301, 1 MAY 2000.

Certified by: XON (Col Lloyd H. Keeton Jr.)
Pages: 21
Distribution: F

The OPR for this supplement is AFSPC/XONH (Lt Col Roger A. Dellinger). This supplement supersedes AFSPCI11-301, 1 May 2000. It implements and extends the guidance of AFI 11-301 Volume 1, ***Aircrew Life Support (ALS) Program***, 19 July 2002. This supplement prescribes command procedures for use in conjunction with the basic AFI. The AFI is published word-for-word without editorial review. It applies to HQ AFSPC and assigned AFSPC flying units. This supplement does not apply to the Air Force Reserve Command (AFRC) or Air National Guard (ANG) units. The use of the name or mark of any specific manufacturer, commercial product, commodity or service in this publication does not imply endorsement by the Air Force.

1.1. Mission. AFSPC Aircrew Life Support. This instruction establishes minimum program requirements and outlines fundamental, administrative and managerial requirements for AFSPC ALS sections, and to provide the best aircrew life support equipment (ALSE) and ALSE/survival continuation training to unit/attached aircrews, operational support fliers and passengers.

1.2. Program Objectives. Increase Helicopter Flight capabilities by enhancing the performance of the aircrew through superior ALSE and training, while reducing injuries, increasing survival rates by providing aircrew and passengers the best equipment available using new technologies and training systems.

1.3.2. AFSPC Units will forward waiver requests by letter or message from the operations group commander through 20 AF/DOH to HQ AFSPC/XONH describing the specific requirement that is creating the problem and explaining why a waiver is needed. If approved, waivers remain in effect for the amount of time needed to correct the problem causing the waiver requirement, not to exceed one year. HQ AFSPC/XONH may cancel the waiver in writing if issues change the basic intent or requirement for the waiver.

1.3.3. AFSPC Units will supplement this instruction (if mission requirements are different than what is published herein), with a flight supplement NLT 12 months from the publication date of this instruction and forward a copy to HQ AFSPC/XONH for file.

1.3.3.1. (Added) Supplements should address missions unique to their operation. Submit proposed supplements through 20AF/DOH to HQ AFSPC/XONH for approval prior to publication. After publication, send copies to HQ AFSPC/XONH, 150 Vandenberg St., Ste 1105, Peterson AFB CO 80914-4200.

1.3.4.1. Ensure all ALS matters, including AFTO Forms 22, **Technical Order Improvement Report and Reply**, AF Forms 1000, **IDEA Application**, deficiency reports, hazard reports and other correspondence relating to ALSE and procedures, are coordinated through 20 AF/DOH to HQ AFSPC/XONH/SEF.

1.3.4.2. All communication requiring HHQ assistance will go through AFSPC. Direct communications with Air Logistics Centers (ALC), Human Systems Program Office (SPO), or Depots offices is not authorized without prior approval and coordination with AFSPC. If immediate contact is required in an emergency situation, advise AFSPC as soon as possible.

1.3.4.3. Telephone and E-mail. Use to request clarification of directives and T.O.s. Coordinate with HQ AFSPC/XONH prior to any direct communications with air logistics centers or depots. E-mail Procedures. Helicopter Flight NCOIC's are encouraged to use e-mail to facilitate correspondence. Use E-mail when an interim response is needed or to answer AFSPC tasking not requiring a formal response.

1.3.4.4. Messages. When sending messages requiring an action by higher headquarters, provide information copies to all command agencies involved.

1.3.4.5. Send information copies of all ALS related product quality deficiency reports (PQDR) to HQ AFSPC/XONH.

1.4. (Added) **Terms, Abbreviations and Reference Materials.** See **Attachment 1** for lists of terms, references and abbreviations used in this instruction. The publications and Air Force Technical Orders listed in **Attachment 1** pertain to inspection, maintenance, storage and use of personal flying and survival equipment. Use of this list is for reference only and is not all-inclusive. Specific T.O.s for items authorized within the unit will be maintained by ALS or within the unit Flight Crew Information File. ALS personnel should possess a working knowledge of these documents and their supplements (if applicable). Information access should be available through CD-ROM, web site, or local publications distribution.

2.9.2.2. (Added) **Command Life Support Officer/ Functional Manager (HQ AFSPC/XONH) will:**

2.9.29. (Added) Be responsible for all MAJCOM ALS requirements as outlined in AFD11-3, AFI 11-301 Vol 1, and AFI 11-301 Vol 2, ***Maintenance and Configuration Requirements and Aircraft Installed Life Support Equipment.***

2.9.30. (Added) Provide command guidance for the use, care, control, and safeguarding of ALSE.

2.9.31. (Added) Act as the focal point for coordination between AFSPC and other MAJCOMs concerning operational ALS matters.

2.9.32. (Added) Review and certify ALS continuation training lesson plans at least every year.

2.9.33. (Added) Evaluate ALS instructors conducting ALS training at least every two years. Document certification on AF Form 1098, **Special Task Certification and Recurring Training.**

2.12. **Squadron Commanders: (Flight Commanders) will:**

2.12.1. Assign a Pilot, qualified and current in the primary aircraft of assignment as LSO. Assignment stability is an important part of the aircrew life support officer function. LSOs will serve for a minimum of 24 months.

2.12.13. (Added) Ensure ALS personnel are assigned limited additional duties or details so as not to interfere with their primary ALS duties.

2.12.14. (Added) Ensure aircraft commanders know their responsibilities to prevent the loss of LSE.

2.12.15. (Added) Ensure all crewmembers and passengers wear or have access to the appropriate equipment for the route of flight. Use or wear ALSE designed and tested through the 412A system. Do not commercially procure any items for use as ALSE other than those listed in this instruction or AFI 11-301 Vols 1 & 2 without prior written approval from HQ AFSPC/XONH.

2.12.16. (Added) Annually budget for ALSE for all assigned and attached aircrew members and operational support fliers, to include flight surgeons and medical technicians. Units are not responsible for the purchase of equipment that is not applicable to the unit mission. For example, 76 HF is not responsible for funding aerial photographers' HGU-55/P helmets used exclusively on fixed wing aircraft. HF's are not responsible for the funding of attached aircrew members or operational support fliers' uniform items, to include flight suits, boots, etc. Funding of uniform items is the responsibility of the individual's unit of assignment. Any disputes/discrepancies concerning unit ALSE funding responsibility must be addressed to HQ AFSPC/XONH Program Element Monitor (PEM).

2.12.17. (Added) Ensure that life support technicians receive an orientation flight in assigned unit aircraft with applicable mission LSE on board.

2.12.18. (Added) Publish supplemental guidance via this instruction, or AFI 11-2H-1 Vol 3, *H-1 Helicopter Operating Procedures*, Chapter 18.

2.13. Squadron LSOs/NCOICs: (Flight LSO/NCOIC) will:

2.13.8. (Added) Meet the qualifications IAW AFI 11-301V1 and this publication.

2.13.9. (Added) Assist the commander in fulfilling requirements as outlined in AFI 11-301V1.

2.13.10. (Added) Certify ALS technicians to conduct ALS classroom and field training at least annually/ during annual training (only if SERE instructors are not available to give training). LSO may act as certifier for technicians; this can only be done when a certifying ALS is unavailable. Document certification signatures on front page of AF Form 623.

2.13.11. (Added) Serve as the focal point for the ALS and survival continuation training program.

2.13.12. (Added) Coordinate the life support training schedule.

2.13.13. (Added) Ensure a realistic training environment is used for all ALS training events.

2.13.14. (Added) Ensure the quality, accuracy, and safety of continuation training program.

2.13.15. (Added) Ensure all crewmembers are briefed on changes to ALSE or new equipment items prior to placing in service.

2.13.16. (Added) Requisition, store, and configure aircraft with ALSE listed in this instruction.

2.13.17. (Added) Ensure the care, use, inspection and maintenance of ALSE conforms to referenced T.O.s and directives.

2.13.18. (Added) Store, handle, service, and account for items that are part of the 412A life support system.

2.13.19. (Added) ALS is not responsible for storage, handling, servicing, or accountability of items such as aircraft installed first aid kits, thermos jugs, fire extinguishers, aircraft portable oxygen cylinders, or items not related to the 412A system. These items will not be stored in the aircrew locker or in the ALS section.

2.13.20. (Added) Ensure availability of sufficient ALSE to support mission requirements IAW AFMAN 23-110, Vol 1 ***Basic AF Supply Procedures***.

2.13.21. (Added) Ensure units develop a master configuration data list to assist in determining unit equipment requirements. Some variables to consider in formulating this list are number of aircraft assigned, number of survival kits (to include maintenance turnaround spares), number of aircrew supported (to included attached), 10 percent spare equipment, etc.

2.13.22. (Added) Monitor all life support systems equipment deficiency reports as required by TO 00-35D-54, ***USAF Material Deficiency Reporting and Investigating System***.

2.13.23. (Added) Ensure ALSE along with related inspection records is routed through appropriate field maintenance activity for inspection/repair. Maintain accountability during these transactions. A 100% Quality Assurance Inspection is required upon of return from each respective agency, document inspections accordingly in QA Log.

2.13.24. (Added) List all ALSE placed aboard AFSPC aircraft on AFTO Form 46, **Prepositioned Life Support Equipment**. Keep AFTO Form 46 in aircraft forms. Completion of the pre-flight certification section of the AFTO Form 46 is required by the Aircraft Commander or designated representative.

2.13.25. (Added) Assist the flight surgeon in completing AF Form 711GBPA, **Life Sciences Report of an Individual Involved in an AF Flight/Flight Related Mishap**, Section A. Aircraft Accident/Incident, and any command supplements regarding ALSE/systems involved in aircraft accidents or incidents.

2.13.26. (Added) Ensure a current AF Form 623, **Individual Training Record**, is maintained IAW AFI36-2201, ***Developing, Managing and Conducting Training***.

2.13.27. (Added) Prepare and submit operational requirements to higher headquarters for evaluation and action IAW AFI10-601, ***Mission Needs and Operational Requirements Guidance and Procedures***.

2.13.28. (Added) Conduct operational test and evaluation (OT&E) of ALSE as directed by higher headquarters.

2.14. **Aircraft Commanders: (or designated representatives) will:**

2.14.5. (Added) Have supervisory responsibility for ALSE while in command of the aircraft.

2.14.6. (Added) Preflight all ALS systems prior to the first flight of the day. Ensure no pilferage has occurred to ALSE.

2.14.7. (Added) Ensure required ALSE IAW with this instruction is on the aircraft prior to each flight and that all personnel are equipped, trained and briefed on the use, care, and safeguarding of this equipment. The equipment will be checked in accordance with aircrew flight publications; the aircrew preflight procedures constitute an inventory of installed ALSE.

3.1. **Purpose.** Outlines basic management requirements for the administration of AFSPC ALSE programs.

3.6.1. During aircraft transfers, ALSE will not transfer with the aircraft unless specifically tasked to do so by HQ AFSPC/XONH. HQAFSPC/XONH serves as the focal point for ALS issues involving aircraft transfers, TDYs, or depot inputs.

3.6.2. (Added) During aircraft ferry and depot deliveries, the survival vest will be used as a means of providing minimum survival equipment needs. When aircrews are scheduled to return via commercial travel, ALS will remove the appropriate hazardous items to include pyrotechnic devices from the survival vest. The use of such vests is authorized for one-time flight when this paragraph applies.

3.7.6. (Added) Each unit ALS section, will establish a QA inspection and evaluation program to provide an objective sampling of ALSE quality. QA programs will include inspections on equipment sent to outside agencies such as survival equipment, PMEL, avionics, and medical supplies. The program will be a continuous effort to improve the efficiency and professionalism of the ALS section. Units will define frequency of QA inspections, and they must perform a minimum of 10 percent of all daily inspections. Exception: 100 percent of items/equipment received from outside agencies will receive a documented QA inspection.

3.7.7. (Added) QA findings must be filed separately for each area evaluated. The ALS section will record all discrepancies noted and corrective actions taken. Maintain these records for 6 months. QA programs will include, but not be limited to, the following areas: Each major equipment item maintained (Helmets, Vests, Survival Kits, LPUs, PMEL, Medical Supply, Survival Equipment Shop, etc.).

3.15.1.2. (Added) Establish a method to control tools used for inspecting, maintaining, and adjusting ALSE, in accordance with AFI 21-101, *Maintenance Management of Aircraft*. These tools will not be used for any other purpose.

3.15.1.3. (Added) The HF/CC must designate a CTK monitor by appointment letter.

3.15.1.4. (Added) Number CTK's and tools as follows: XX HF CTK #1, XX HF CTK #2, and so on for each CTK on hand. Each CTK requires a number.

3.15.1.5. (Added) Tools in each CTK will be numbered according to the CTK they are assigned, XX HF #1-1, XX HF 1-2, XX HF 2-1, XX HF 2-2, etc. NVG-specific tools must be individually numbered IAW the above convention.

3.15.1.6. (Added) Use a sign out/in inventory sheet, and an individual tool list for each CTK. Conducted and document inventories prior to each use and at the beginning and end of each duty day.

3.15.1.7. (Added) A Master Book for the CTK program will be set up and will have a tool listing for each CTK signed by the CTK monitor/NCOIC. Annual inventories will be documented in the master book.

3.18. USAF Aircrew Life Support Awards Program: (AFSPC Annual Aircrew Life Support awards program):

3.18.1. Individual awards, AFSPC Small Unit award. These awards are established to recognize individual and unit accomplishments for each calendar year.

3.18.2. Units submit nominations to HQ AFSPC/XONH for Command selection. Winner packages will then be forwarded to HQ USAF/XO and eligible for the Air Force ALS awards.

3.19. Automated Life Support Management System (ALSMS): (Aircrew Life Support Equipment & Records Tracking System (ALERTS)):

3.19.2. **(Added)** ALSMS/ALERTS will print out a hard copy of each inspection record. Use this hard copy to annotate inspection updates, new expiration dates, new lot numbers, etc. The inspector will make necessary entries on the hard copy and initial. After annotated information is updated in ALSMS/ALERTS, the old annotated hard copy will be maintained until a current back-up disk and hard copy of your ALSMS/ALERTS data files are run.

3.19.3. **(Added)** In case of a computer malfunction, units will maintain a back-up disk and hard copy of the ALSMS/ALERTS data files. Run back-up disk and hard copy as necessary to restore data.

3.19.4. **(Added)** Continue the use of inspection tags or booklets that are attached or installed in equipment items as required by technical orders.

3.19.5. **(Added)** Units will submit ALSMS/ALERTS program problems to HQ AFSPC/XONH.

3.21. **(Added) Equipment Control:**

3.21.1. **(Added)** Preposition ALSE on board aircraft to the maximum extent possible. Remove this equipment from the aircraft only for recurring inspections or as required for aircraft maintenance.

3.21.2. **(Added)** Establish local procedures to document, control, and retrieve ALSE required for temporary issue.

3.21.3. **(Added)** When ALSE has been removed or identified as being from transient aircraft, notify the owning unit's life support section citing type aircraft, tail number, type and quantity of equipment removed, and present location. Return equipment to owning unit through base transportation channels using SPD-02. Mark assets for the gaining life support unit.

3.21.4. **(Added)** Marking equipment with unit identification and related information helps prevent loss and expedites return to the owning unit. When assigned, record serial numbers on appropriate forms.

3.21.5. **(Added)** All multi-person life raft cases, accessory containers, and life preserver cases will be stenciled with "AFSPC" plus the name and number of the owning unit. Remove or obliterate LSE identification designators prior to turn-in or transfer of serviceable or repairable equipment.

3.21.6. **(Added)** Training equipment will be marked according to applicable TOs, maintained sufficiently to ensure realism, and should mirror the installed or in-use equipment.

3.22. **(Added) Supply Assistance.** Immediately report any equipment/supply difficulties that impact or limit mission capability to HQ AFSPC/XONH. Provide the following information when reporting shortages: stock number, item description, quantity back-ordered, quantity on-hand, off base requisition number, priorities/UJC, and whether requisitions are "firm" or "memo" due-out.

3.23. **(Added) AFTO Form 223, Time-Change Requirements Forecast.** Submit time-change requirements forecasts according to T.O. 00-20-9, *Forecasting Replacement Requirements for Selected Calendar and Hourly Time-Change*.

3.24. **(Added) Related Base Maintenance and Support Activities.** A LS sections requiring maintenance support for repair of survival items such as radios, life rafts and life preservers will accomplish the applicable forms and forward items to the appropriate maintenance activity for repair or inspection. ALS personnel will coordinate with the maintenance activity to ensure inspection/maintenance capability. Units who receive services/support from other command units will have a written agreement that specifies the responsibilities of all parties involved. Send copies of all such agreements to HQ AFSPC/XONH.

3.24.1. **(Added) Survival Equipment Shops:**

3.24.1.1. (Added) Inspect, repair, and pack life rafts, life preservers, internal accessory containers and anti-exposure suits.

3.24.1.2. (Added) If currently trained and certified to operate a sewing machine (documented on AF Form 1098), ALS technicians will maintain and repair ALSE and flight clothing.

3.24.1.3. (Added) Sections maintaining Sewing machines must comply with *AFOSH Standard 91-501, Air Force Consolidated Occupational Safety Standard, Chapter 21, Lock out Tag out procedures*.

3.24.2. (Added) **Medical Supply.** Inspects and maintains first aid kits IAW applicable directives and replaces unserviceable components as necessary.

3.24.3. (Added) **Munitions Supply.** Monitors the status of munitions suspended or restricted by TO 11A-1-1. Provides immediate notice of suspended or restricted lot numbers to all known users of affected NSNs.

4.1.2. (Added) AFSPC LSO and Technicians will be trained in accordance with **Figure 4.1. (Added)**.

4.1.3. (Added) HQ AFSPC/XONH FM will function as the command trainer or designate a qualified trainer to provide training as required.

4.1.4. (Added) Individuals will annotate major shop tasks and annual re-certifications on the AF Form 623, using AF Form 797, **Job Qualification Standard Continuation/Command JQS**, and AF Form 1098, or equivalent authorized computer-generated form.

4.1.5. (Added) Instructor Certification:

4.1.5.1. (Added) The unit LSO will evaluate unit Aircrew Life Support Training Instructors initially and on an annual basis.

4.1.5.2. (Added) Only one block of instruction needs to be evaluated for instructors to maintain their certification provided they perform to the satisfactory level.

4.1.5.5. (Added) If an instructor's performance is below satisfactory, the instructor will be decertified IAW AFI 36-2201, on that block of instruction, retrained and recertified.

Figure 4.1. (Added) ALS Instructor Training.

Course Description(1)	Course Number	Apprentice (3-Level)	Jny'man (5-Level)	Craftsman (7-Level)	Super'dnt (9-Level)	ALSCT Instructor	LSO
ALS Officer Course	L3OZR1T171000						M
ALS Craftsman	J3ABR1T171-000			M	M		
Combat Survival	S-V80-A (4)	D	D	M	M	M	M
Water Survival	S-V86-A/S-V90-A (2,4)	D	D	M	M	M	M
Arctic Survival	S-V87-A (3,4)	M	M	M	M	M	M
Dunker/HEED Training	S-V84-A (6)	D	D	M	M	M	M
Airborne Parachutist	L5AZA1T231001					D	
Freefall Course	AM-490					D	
Classroom Instructor Course (4)	Y120022			M	M	M	D
Aircrew Protection Instructors Course (4)	Y120006			M	M	M	
ALS Program Managers Course (4)	Y120004			M	M		
Life Science Equipment Invest. Course (5)	L3AZR1T171000	D	D	M	M	D	D
Physiological Training Altitude Chamber (7)	N/A	D	D	D	D	M	M
NVG O/I-Level Maintenance Course	J4AST1T151002 (8)	M	M	M	M	M	

notes: 1. Training Codes: M = Mandatory, D = Desirable. 2. S-V90-A and S-V86-A are interchangeable for helicopter units. S-V90-A, Water Survival Training, Non-Parachutist, is the preferred training for AFSPC technicians. 3. S-V87-A, Arctic Survival Training, Mandatory for northern tier units: 37 HF, 40 HF, and 54 HF. Must be accomplished within 12 months of arrival to unit. 4. These courses are mandatory for an instructor or supervisor assigned to instruct the unit's ALSCT programs; it is desirable otherwise for 3- and 5-level ALS personnel. Refer to AFI 11-301, Table 2. To determine other mandatory requirements for ALS instructors. 5. Mandatory for units with only one life support technician assigned. 6. Mandatory for units with an overwater mission, i.e. 76 HF, Vandenberg AFB. 7. Contact the servicing Physiological Training Facility for availability. 8. May be accomplished through QJT.

5.1. **Purpose.** Outlines responsibilities and requirements of the AFSPC ALS and survival continuation training program.

5.4.5. (Added) All aircrew members will attend training IAW **Table 2.**, AFI 11-301, Vol 1, and AFI11-2H-1, Vol 1, *Helicopter Aircrew Training*.

5.4.6. (Added) To obtain slots for formal survival schools, forward the name, rank, organization and name/identifier of course desired to HQ AFSPC/XONH.

5.4.7. (Added) Unit continuation training will include realistic "hands-on" training, maximum student participation, student demonstrated knowledge and proficiency, and training aids to enhance the learning objectives. Crewmembers who require training during any specific month may satisfactorily complete that training at any time during that month. Individuals requiring training are not considered delinquent until the first day of the following month.

5.9.3. Aircrew members receiving ALS training will wear all items of clothing and equipment normally worn during flight. Flying boots are not required for water survival training, however, tennis shoes or equivalent are, no open shoes (sandals) are authorized.

5.10.7. (Added) Lesson Plans. Lesson plans used by ALS personnel will be recertified on an annual basis by the unit LSO. The certifying official will date and sign the cover page of each lesson plan.

Table 5.2. (Added) ALS Personnel Recertification Training.

Course Description (1, 9)	Course Number	Code (1)	ID (8)	P	FE	AG	AP	FS	MT	OSF
One Time Training										
Combat Survival Training (7)	S-V80-A	G	SS20	M	M	M	M	(4) M	D	D
	This is an Air Force Education and Training Course Announcements (ETCA) level course; reference AFI 36-2209, <i>Survival and Code of Conduct Training</i> for specifics. Individuals must have this training prior to first flight.									
Water Survival School Training (WST) (7)	S-V90-A	G	SS32	M	M	M	M	(4) M	(2) M	(2) M
	This is an Air Force Education and Training Course Announcements (ETCA) level course; reference AFI 11-301 for specifics. Individuals must have this training prior to first flight.									
Initial UET (HEED) Training	S-V84-A	G	SS30	M	M	M	M	(2) M	2) M	(2) M
	This is an Air Force Education and Training Course Announcements (ETCA) level course; reference AFI 11-301 for specifics. Individuals must have this training prior to first flight.									
Upon PCS/PCA										
Life Support Familiarization Training (6)	N/A	G	LL01	M	M	M	M	M	M	D
	One time event conducted prior to the first flight at home-station to familiarize aircrew members with local equipment and rescue procedures. It will familiarize the crewmember with equipment, local procedures, requirements, and services provided by the life support section. This may include a "snap-shot" tour of the life support section and applicable areas. All aspects of life support training will be covered to the extent necessary to fly locally.									
Every 3 Years										
Non-Combat Survival Training (NCST)(3)	N/A	N	SSO4	M	M	M	M	M	D	D
	An academic and equipment refresher training program designed for aircrews whose duties do not require them to fly over enemy territory. It is the opportunity to demonstrate hands-on ability to use life support equipment, employ survival techniques, and initiate rescue procedures. This training will be accomplished in a logical sequence stressing hands-on participation. It is preferred this training be conducted in field conditions similar to those a crewmember would encounter in their local flying area and region. Scenarios should be built based on local mission profiles, available equipment, crew experience level, and local terrain. By completion of the training, personnel will demonstrate their ability to use LSE and explain survival techniques and rescue procedures.									
Annual (Every 12 months)										
Emergency Egress Training-Non Ejection	N/A	G	LL03	M	M	M	M	M	M	M
	Aircrew members and operational support flyers will receive ground egress training in accordance with AFI 11-2H-1, Vol 1, H-1 <i>Helicopter Aircrew Training</i> . Training will emphasize primary and secondary exits and include a discussion of procedures in the event of unusual landing attitude, fire, injury, and water landing. Also evaluates the aircrew's ability to demonstrate use of aircrew and passenger LSE and primary and secondary egress points. Practice egress scenario to enforce the importance of aircrew coordination actions required for emergency situations. Ensure crewmembers are aware of their responsibilities for conducting safety briefings IAW AFI 11-202 Vol. 3, <i>General Flight Rules</i> .									

Course Description (1, 9)	Course Number	Code (1)	ID (8)	P	FE	AG	AP	FS	MT	OSF
Life Support Equipment (LSE) Training	N/A	G	LL06	M	M	M	M	M	D	
Training will be conducted by life support personnel and will include hands-on training of the contents of the life support vest and emergency survival gear carried on the aircraft. By completion of the training, the crewmember will brief and/or demonstrate the location, preflight, and proper use of all LSE carried aboard unit aircraft or issued to the aircrew member.										
Water Survival Training (5)	N/A	O	SS05	M	M	M	M	M	M	M
Helicopter crewmembers and OSFs will view the UET (606040DF) and HEED (802514DN) videos annually. UET refresher should consist of "hands-on" training for each crewmember with all flotation devices and components available during an overwater emergency, as scheduling permits. Conduct hands-on training in a pool or open body of water with precautions taken to ensure the safety of crewmembers and instructors. The objective of this training is to emphasize survivor needs using water survival related equipment and procedures. Hands-on training with the HEED will be conducted during this hands-on UET refresher training. Aircrew members arriving at a new station, who require UET refresher training after that unit has completed training for the year, are not considered delinquent until the next training period. However, individuals will attend an academic session (which covers all required material) prior to flying overwater mission.										
NOTES: 1. Grounding Codes: G = grounding - the crewmember may not perform flight duties with the event not completed. N = nongrounding - the crewmember may perform flight duties with the event not completed and may maintain MR or BMC status depending on unit commander guidance. O = other restrictions - the crewmember may perform flight duties with the event not completed or overdue under the condition the mission profile does not include the specific event. Training Codes: M = Mandatory, D = Desirable. 2. Crewmembers, flight surgeons, medical technicians and operational support flyers who perform overwater flights will complete initial UET refresher and HEED training. The grounding code for flight surgeons, medical technicians and OSF for this event is "O". 3. Attendance to Arctic Survival Training, S-V87-A, accomplishes Non-Combat Survival Training for personnel assigned to Northern Tier units. The accomplishment date will be the date of graduation from the course. 4. The USAF School of Aerospace Medicine Course fulfils the requirement for only SS32 and SS20. 5. All aircrew members assigned to a unit with an overwater mission and operational support flyers who perform overwater flights will complete annual UET refresher and HEED training. In-water training conducted by Life Support personnel is preferable to the required videos (Seconds to Live, PIN #606040-DF and HEED II, PIN #802514). If videos are used to accomplish the training, hands-on, in-water training must be accomplished by member during the next training session provided by the unit. 6. All newly assigned aircrew will receive Local Area Survival Training as part of their in processing (duty-familiarization training) prior to their first flight. 7. All initial training must be accomplished at formal schoolhouse. 8. Identifiers (ID) are typical AFSPC identifiers. Other identifiers may be necessary to comply with other AFIs and ARMS. Other identifiers, if used, must be approved by HQ AFSPC/XONH. 9. Combined Training. Training sessions may be combined to satisfy all requirements as long as all training requirements are met. (i.e., LSE training may be conducted during UET refresher training).										

6.1. Purpose. AFSPC Flying Clothing And Equipment Requirements:

6.1.1. (Added) **Purpose.** Prescribes the clothing and equipment to be worn or carried by aircrew members and passengers. It is applicable to all flying units and to aircrew members and passengers when flying in aircraft assigned or attached to organizations of this command. Refer to T.O. 14-1-1, AFI 11-301, Vol 1, and AFI 11-2H-1 Vol 3 for additional aircrew requirements and responsibilities. Some aircraft configurations may require additional equipment; therefore, appropriate aircraft publications should be used for specific mission requirements. In the event ALSE inspections come due during off-station missions, every effort should be made to get the equipment inspected by qualified ALS personnel. If qualified ALS services are not available, the unit commander/DO may grant a waiver to allow for mission completion with overdue ALSE.

6.1.2. (Added) Specify, by supplementing this instruction or AFI11-2H-1, Vol 3, Chapter 18, the type of seasonal clothing, the temperature ranges and/or the calendar months, and specific operational missions when seasonal flying clothing is worn. Additionally, commanders need to ensure Wing Operations Plans and local guidance cover minimum requirements for passengers.

6.1.3. (Added) Ensure flying clothing is compatible with the mission, climate and terrain features involved. When determining the proper clothing combination, the forecast surface chill factors and air temperatures should be considered for the duration of the flight to include departure, enroute and training areas. Allowance Standard 016 defines climatic zones in its preface and may be used as a source document for recommended winter wear.

6.1.4. (Added) Ensure aircrew members and operational support crewmembers are issued adequate flying clothing and equipment to meet mission requirements IAW applicable directives. Additionally, ensure all aircrew members understand the possible consequences of wearing undergarments that melt when exposed to extreme heat.

6.1.5. (Added) Ensure ALSE is assembled and maintained as outlined in applicable TOs and is carried as prescribed herein and as listed in applicable directives.

6.4.1.4. (Added) All rotary wing aircrew members and medical technicians, as authorized by Allowance Standard 016, will wear the HGU-56/P aircrew helmet.

6.4.1.5. (Added) Visor housings may be customized to accommodate FS/MT functionality. Example: Velcro on the housing for a light attachment point.

6.4.1.6. (Added) Helmet bags will be used to transport helmets outside of the life support section when not being worn, to include going to and from the aircraft.

6.4.2.4. (Added) ALS personnel will issue NVGs to aircrew members using an appropriate tracking system and ensure goggles are secure when not in use.

6.4.2.5. (Added) A label-on tape (or equivalent) will be placed on each goggle to reflect the next inspection due date. All historical data i.e., repairs, component replacement, TCTOs, one-time inspections, etc., will be recorded.

6.4.2.6. (Added) ALS personnel will perform a post-flight inspection on NVGs after each flight. A method to report discrepancies will be established to communicate problems experienced by the user to ALS personnel for corrective action.

6.4.2.7. (Added) Units will track battery service life to reduce the possibility of battery failure during flight. The service life of batteries for use in NVGs will not exceed a maximum of 15 hours. Aircrews must have at least one set of new (unused) batteries installed in the battery pack as a backup to the batteries being used as the primary set for the flight. The use of carbon-based batteries is not authorized.

6.4.2.8. (Added) NVG neck lanyards are mandatory. Types of cord and length are not established by T.O. Attachment procedures are outlined in T.O. Use the supplied 28-inch cotton cord or equivalent that comes with the goggles.

6.4.2.9. (Added) The Hoffman ANV-20/20 NVD Infinity Focus test set will be used to perform infinity focus and preflight focusing procedures. The 20-foot test lane method may be used as an alternate method for testing when their 20/20 test set is out of service. The test lane will be IAW Armstrong/AF Laboratory set-up instructions.

6.4.2.10. (Added) WG/CC, OG/CC, SFG/CC and flight Surgeons may be issued NVG's during flight IAW AFI 11-2H-1 Vol 3 H-1 Helicopter Operations Procedures.

6.4.5.3. (Added) Use of the Mustang, MAC-100, MAC-200, Pilot and Winchman anti-exposure suits are authorized in AFSPC.

6.4.5.3.1. (Added) Anti-exposure suits will be inspected every 180 days.

6.4.5.3.2. (Added) Constant wear anti-exposure suits will be worn by helicopter crewmembers on any preplanned overwater flight when the water temperature is 60 degrees Fahrenheit (F) (15.5 degrees Celsius (C)) or less.

6.4.6.1. (Added) The HEED is a compact, lightweight, breathing apparatus intended for use by helicopter aircrew personnel during an emergency ditching in water. All in-service HEEDs will be inspected and maintained IAW applicable technical orders.

6.4.6.2. (Added) The HEED will be attached to the aircrew survival vest vertically on the left front side as viewed from the wearer's perspective.

6.4.7. Life preservers units (LPU)/Horsecollars. Will be worn on all overwater flights by aircrew members, operational support flyers and passengers aboard rotary wing aircraft.

6.4.7.1. (Added) Life rafts will be carried on all overwater flights (outside autorotational distance to shore) and will be of the type and number specified in T.O. 14S3-1-3 and this instruction. Components will be installed IAW **Attachment 4 (Added)**. Additional authorized components may be installed as provided for in this instruction by unit supplement to this instruction. A minimum of one multi-place life raft and accessory container will be on-board every overwater flight (outside autorotational distance from shore).

6.4.8.1. (Added) Only survival kits/vests authorized in 14S series T.O.s, *Survival Equipment, General Life Preservers, Life Rafts etc.*, and this instruction will be assembled, maintained, and used. These kits will contain mandatory items listed in **Attachment 2 (Added)** and **Attachment 3 (Added)**. Commanders may authorize use of Air Force approved optional items listed in applicable 14S-series T.O.s provided containers are not over packed. Optional items should relate directly to local climatic conditions, terrain or mission requirements. Additional authorized components must be provided by unit supplement to this instruction. Survival vests will be individually sized and issued to primary aircrew members. A minimum of one survival kit per aircraft will be maintained by unit ALS.

6.4.8.2. (Added) Equipment shortages will not necessarily render the accessory containers and vests unserviceable. Units must have valid priority requisitions established against the shortages and reflected on inspection records. Waivers for equipment shortages must be attained through HQ AFSPC/XONH.

6.4.8.3. (Added) The DD Form 1574, **Serviceable Tag-Materiel**, attached to survival kits, multi-place life rafts, and survival vests will reflect lot numbers and inspection dates of all time change or dated items. Any shortages will also be noted on the DD Form 1574.

6.4.8.4. (Added) AFSPC survival components will not include firearms or ammunition.

6.4.8.5. (Added) Expendable survival search and rescue kits may be maintained by ALS at unit commander discretion.

6.4.8.6. (Added) Air Ace survival vests will have holsters attached. SARVIP's or equivalent will not have a holster attached.

6.4.8.7. (Added) Aircrew body armor will be of a minimum ballistic protection rating of level IIIA. Each ballistic vest will be fitted to each aircrew member. Each vest will be inspected and cared for using the manufacturers instructions. Inspection cycles will coincide with the survival vest. These will not be personal issue; they can be re-fitted to another member as needed.

6.4.8.8. (Added) PRC-90 series survival radios and batteries will be inspected, maintained and disposed of IAW 31R-, 33D-, 14S- series technical orders and TO 00-25-213.

6.4.8.9. (Added) An inspection label will be attached to the PRC-90 radio and spare battery.

6.4.8.10. (Added) **LMR/COMPLEX Radios:**

6.4.8.11. (Added) LMR/Complex Radios are for the particular AOR and are not to be used outside the prescribed complex area. Contact ALS personnel when pre-planned flights are scheduled outside the AOR for issue of the PRC-90 radio, i.e.; depot deliveries/air show commitments etc.

6.4.8.12. (Added) Units will determine accountability procedures.

6.4.8.13. (Added) At a minimum, 2 primary crewmembers carry the LMR, if not the whole crew (as mission dictates) and, as a back up, the PRC-90 can be used, and carried in the vest by other crewmembers. The LMR radios are not for issue to SF, Flight Medicine personnel and other non-primary Aircrew.

6.4.8.14. (Added) Ensure operation, care and issue procedures are taught in initial and recurring aircrew life support continuation training. Ensure SF and Flight Medicine personnel receive awareness training that there are different radios on board the aircraft in the event of an emergency.

6.4.8.15. (Added) Radios will be stored in the ALS section when not in use.

6.4.9.1. (Added) SARVIP/JSAVE/Troop/Turret Gunner Safety Belt (P/N MS16070-21). It is the user's responsibility to inspect and ensure their safety belt is maintained IAW TO 13A1-1-1. ALS will conduct the prior-to-issue inspection and provide for the required maintenance and repair IAW TO 13A1-1-1. Safety Belts will be modified IAW paragraph 2-20.1. Belts that have been soaked in salt water (other than exposure to mist), or show evidence of salt stains, will be cleaned and tested IAW TO 13A1-1-1, paragraph 4-3.

6.5.5.5. (Added) Units using vacuum packing will outline specific details in a supplement to this instruction or local operating instruction. Vacuum-packing equipment may be requisitioned according to Allowance Standard 006 or Allowance Standard 258.

7.7.3. (Added) M-9: Aircrew members wearing the Air Ace vest will have their weapon holstered on the survival vest, or in a low profile thigh mounted holster as long as it does not interfere with flight control movement or impede aircraft egress. Flight Engineers wearing the SARVIP/JSAVE or equivalent will wear a low profile thigh mounted holster.

7.10. (Added) Forms and IMTs Adopted

7.10.1. (Added) AF Form 1098, **Special Task Certification and Recurring Training**

7.10.2. (Added) AF Form 711GBPA, **Life Sciences Report of an Individual Involved in an AF Flight/Flight Related Mishap**

7.10.3. (Added) AF Form 623, **Individual Training Record**

7.10.4. (Added) AFTO Form 223, **Time-Change Requirements Forecast**

7.10.5. (Added) AF Form 797, **Job Qualification Standard Continuation/Command JQS**

7.10.6. (Added) DD Form 1574, **Serviceable Tag-Materiel**

7.10.7. (Added) AFTO Form 22, **Technical Order Improvement Report and Reply**

7.10.8. (Added) AF Form 1000, **IDEA Application**

7.10.9. (Added) AFTO Form 46, **Prepositioned Life Support Equipment**

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-2H-1V1, *H-1 Helicopter Aircrew Training*

AFI 11-2H-1V3, *H-1 Helicopter Operations Procedures*

T.O. 34-series, *Shop Machinery and Support Equipment*

T.O. 43D7-series, *TS-24B Test Set*

T.O. 42B-series, *Gas Cylinders*

AFOSH Standard 91-202, *Air Force Mishap Prevention Program*

AFOSH Standard 91-501, *Air Force Consolidated Occupational Safety Standard*

Abbreviations and Acronyms

ASC—Allowance Source Code

CST—Combat Survival Training

LAST—Local Area Survival Training

LSE—Life Support Equipment

MJQS—Master Job Qualification Standard

QA—Quality Assurance

SRT—Survival Refresher Training

UET—Underwater Egress Training

UETR—Underwater Egress Training Refresher

Terms

Life Support Equipment (LSE)—LSE encompasses all LSE that is part of the 412A life support system or is designated by HQ AFSPC/XONH

Northern Tier Units—37 HF, 40 HF and 54 HF

Squadron—All AFSPC Helicopter Flights are required to fulfill squadron level responsibilities

Squadron.—All AFSPC Helicopter Flights are required to fulfill squadron level responsibilities.

Attachment 2 (Added)

CREWMEMBER CONFIGURATION

Table A2.1 (Added) Mandatory Crewmember Configuration.

Item	Notes	Qty
HGU-56/P HELMET		1 Ea
Flightsuit		1 Pr
Flight Gloves		1 Pr
Approved Flight Boots		1 Pr
Survival Vest, SARVIP/JSAVE/AIR ACE	1	1 Ea
Life Pres, LPU-10/P, 2/P	3	1 Set
Helicopter Emer. Escape Device (HEEDS)	3	1 Ea
Anti-Expo. Suit, (As Required)	3	1 Ea
AN-AVS/9 (F-4949) NVG (As Required)		1 Set
Aircrew Sidearm, M-9 with extra Magazine/Ammo (As Required)		1 Ea
Thigh Mounted Holster (As Required)	2	1 ea
Aircrew Body Armor (As Required)		1 Ea
NOTES: 1. SARVIP/JSAVE are only authorized for FE's, Photographers and Medical Personnel 2. Thigh worn holsters are authorized for Flight Engineer Position only 3. Mandantory for all Overwater over water flights		

Attachment 3 (Added)

MINIMUM SURVIVAL VEST COMPONENTS

Table A3.1. (Added) Mandatory Minimum Survival Vest Components. See para. 6.4.4.

Item	Notes	Qty
Compass, Magnetic		1 EA
Helicopter Emergency Egress Device	1	1 EA
Matches		1 EA
Multi-Plier“ Tool, Leatherman“ or Gerber“		1 EA
Signal Flare, MK-13 or MK-124		1 EA
Signal Kit, Personnel Distress, A/P 25S-5A	4	1 EA
Signal Mirror, type I or II		1 EA
Strike Force“ Firestarter		1 EA
Strobelight (Ex. SDU-5/E/MS2000) Battery/Flash guard		1 EA
Survival Radio, PRC-90 series w/spare battery /LMR/Complex	2	1 EA
Whistle	3	1 EA
NOTES: 1. Required for overwater missions when not within autorotational distance of land. 2. PRC-90-2 Survival Radios are the standard radio for use in AFSPC. The LMR-Complex Radio will be installed IAW Para 6.4.5.3. (Added) of this Instruction 3. Storm 40/Fox 40 is recommended. 4. Due to extreme wind and associated fire danger, Vandenberg will be the only unit using this item		

Attachment 4 (Added)

MINIMUM SURVIVAL KIT COMPONENTS

Table A4.1. (Added) Mandatory Minimum Survival Kit Components.

Item	Notes	Qty
AFTTP (I) 3-2.26		1 EA
Ax or Combination Tool		1 EA
Blanket, Casualty (Green or Orange/Silver)		3 EA
Bolt Knife, or equivalent		1 EA
Candle		1 EA
Chemical Light Stick	1	6 EA
Hood, Cold Weather	2	3 EA
Match Container with matches	3	3 EA
Mittens, N-4B (Large and/or X-Large, minimum)	2	3 PR
Nylon Cord, 550 lb., 50 ft.		1 EA
Sleeping Bag		3 EA
Socks, cold weather (Ex. Wool)	2	3 PR
Survival Radio, PRC-90 series w/spare battery		1 EA
NOTES: 1. Recommend 6 inch in length, 12-hour glow time, 3 red, and 3 green. 2. Vandenberg AFB is not required to have these items. 3. Commercially procured Wind/Waterproof Safety Matches (MK-2) are preferred.		

Attachment 5 (Added)

MINIMUM ACCESSORY CONTAINER COMPONENTS

Table A5.1. (Added) Mandatory Multi-Place Life Raft Minimum Accessory Container Components.

Item (Note 4)	Notes	Qty
Adapter Pump		1 EA
Bailing Bucket		1 EA
Bailing Sponge		1 EA
Canopy Mast		1 EA
Canopy Rods		5 EA
Canopy/Paulin		1 EA
Chemical Light Sticks or Personal Marker Light (PML)	1	6 EA
Compass, Magnetic		1 EA
Distress Light (Ex. SDU-5/E/MS2000)		1 EA
Emergency Drinking Water, Flexpack		40 OZ
First Aid Kit		3 EA
Fishing Kit		1 EA
Hand Pump		1 EA
Knife, General Purpose		1 EA
Nylon Cord, 550lb, (30 feet)		1 EA
Ointment, Sun, Minimum of SPF-45		3 EA
Raft Knife, Floating	1	1 EA
Raft Repair Kit		1 EA
Ration, General Purpose		3 EA
Sea Dye Marker and/or Sea Rescue Streamer (SAR-C/25-MIL)	2	2 EA
Signal Flare, MK-13 or MK-124		4 EA
Signal Kit, Personnel Distress, A/P25S-5A		1 EA
Signal Mirror, Large		1 EA
Survival Manual, AFTTP(I) 3-2.26		1 EA
Survival Radio, PRC-90 series w/spare battery	3	1 EA
Survivor-06		1 EA
Water Storage Bag, Size A		1 EA
Whistle		1 EA

NOTES:

1. PML is preferred.
2. Sea Rescue Streamer is preferred.
3. PRC-90-2 Survival Radios are the standard radio for use in AFSPC. Other PRC-90 series may be used until the -2 is available.
4. If an item is located inside the life raft itself, it is not necessary to duplicate it in the accessory kit.

DOUGLAS M. FRASER, Brig Gen, USAF
Director of Air and Space Operations